

CLAIM AMENDMENTS

1. (canceled)

1 2. (previously presented) The rotating heat exchanger
2 according to claim 24, further comprising
3 peripheral seals between the periphery of the rotor on
4 the one hand and the housing on the other hand.

1 3. (previously presented) The rotating heat exchanger
2 according to claim 2, wherein peripheral seals are fixed to the
3 housing.

1 4. (previously presented) The rotating heat exchanger
2 according to claim 24 wherein the means for pressurizing maintains
3 pressure of the housing or sealing air at a constant pressure
4 level.

1 5. (previously presented) The rotating heat exchanger
2 according to claim 24 wherein the means for pressurizing maintains
3 pressure of the housing or sealing air at a constant differential
4 pressure above the pressure of the airflows flowing through the
5 rotor.

6. (canceled)

1 7. (previously presented) The rotating heat exchanger
2 according to claim 24, further comprising
3 a control and regulating device for operating the
4 pressure source according to an output signal of a pressure sensor
5 measuring the pressure in the housing or a pressure sensor
6 measuring the pressure of the airflows flowing through the rotor.

1 8. (previously presented) The rotating heat exchanger
2 according to claim 24 wherein the means for pressurizing
3 pressurizes the housing with non-critical housing or sealing air.

9. (canceled)

1 10. (currently amended) ~~The rotating heat exchanger~~
2 ~~according to claim 24, further comprising~~ A rotating regenerative
3 heat exchanger comprising:

4 a heat-exchange rotor rotatable about an axis and having
5 axially oppositely directed front and rear end faces and an outer
6 periphery;

7 a housing surrounding the rotor and defining a first flow
8 sector for axial front-to-rear flow through the rotor of air from
9 the exterior and, angularly offset from the first sector a second
10 flow sector for axial rear-to-front flow through the rotor of air
11 to the exterior;

12 means for pressurizing the housing around the periphery
13 of the rotor with housing air at a superatmospheric pressure;

14 front and rear separators fixed in the housing,
15 juxtaposed with the respective end faces of the rotor, and
16 extending diametrally of the rotor between the sectors;

17 means for projecting sealing air from the separators and
18 thereby preventing mixing of air between the sectors; and

19 a purging wedge-like device connected to the housing and
20 able to be supplied with a purging airflow from the means for
21 pressurizing at the end face of the rotor in the region of the
22 first flow sector and immediately upstream in a rotation direction
23 of the rotor of the second flow sector.

1 11. (previously presented) The rotating heat exchanger
2 according to claim 24, further comprising
3 a temperature-regulating device by means of which the
4 housing or sealing air can be temperature-regulated.

1 12. (previously presented) The rotating heat exchanger
2 according to claim 24 wherein the pressurizing means draws housing
3 or sealing air from the airflow of the first sector.

13 - 14. (canceled)

1 15. The method according to claim 25 wherein the
2 pressure level of the housing or sealing air in the housing is kept
3 constant.

1 16. The method according to claim 25 wherein the
2 pressure level of the housing or sealing air in the housing is kept
3 above the pressure level of the airflows flowing through the rotor
4 by a constant differential pressure.

1 17. (previously presented) The method according to
2 claim 25 wherein the pressure level of the housing or sealing air
3 in the housing is controlled or regulated in dependence on the
4 pressure level in the housing or the pressure level of the
5 airflows flowing through the rotor.

1 18. (previously presented) The method according to
2 claim 25 wherein the housing is pressurized with noncritical
3 housing or sealing air.

19 - 20. (canceled)

1 21. (previously presented) The method according to
2 claim 25 wherein the housing or sealing air is
3 temperature-regulated.

1 22. (previously presented) The method according to
2 claim 25 wherein the housing or sealing air is taken from the
3 supply air and/or external air system of the rotating heat
4 exchanger.

23. (canceled)

1 24. (previously presented) A rotating regenerative heat
2 exchanger comprising:

3 a heat-exchange rotor rotatable about an axis and having
4 axially oppositely directed front and rear end faces and an outer
5 periphery;

6 a housing surrounding the rotor and defining a first flow
7 sector for axial front-to-rear flow through the rotor of air from
8 the exterior and, angularly offset from the first sector a second
9 flow sector for axial rear-to-front flow through the rotor of air
10 to the exterior;

11 means for pressurizing the housing around the periphery
12 of the rotor with housing air at a superatmospheric pressure;

13 front and rear separators fixed in the housing,
14 juxtaposed with the respective end faces of the rotor, and
15 extending diametrally of the rotor between the sectors; and

16 means for projecting sealing air from the separators and
17 thereby preventing mixing of air between the sectors.

1 25. (currently amended) A method of operating a
2 regenerative heat exchanger having:
3 a heat-exchange rotor rotatable about an axis and having
4 axially oppositely directed front and rear end faces and an outer
5 periphery;
6 a housing surrounding the rotor and defining a first flow
7 sector and, angularly offset from the first sector a second flow
8 sector; and
9 front and rear separators fixed in the housing,
10 juxtaposed with the respective end faces of the rotor, and
11 extending diametrically of the rotor between the sectors,
12 the method comprising the steps of:
13 flowing air from the exterior axially front-to-rear
14 [[flow]] through the first sector of the rotor;
15 flowing air to the exterior axially axial rear-to-front
16 [[flow]] through the second sector of the rotor of air;
17 pressurizing the housing around the periphery of the
18 rotor with housing air at a superatmospheric pressure; and
19 projecting sealing air from the separators and thereby
20 preventing mixing of air between the sectors.

1 26. (new) A method of operating a regenerative heat
2 exchanger having:

3 a heat-exchange rotor rotatable about an axis and having
4 axially oppositely directed front and rear end faces and an outer
5 periphery;
6 a wedge-like purging device on the rotor;
7 a housing surrounding the rotor and defining a first flow
8 sector and, angularly offset from the first sector a second flow
9 sector; and
10 front and rear separators fixed in the housing,
11 juxtaposed with the respective end faces of the rotor, and
12 extending diametrically of the rotor between the sectors,
13 the method comprising the steps of:
14 flowing air from the exterior axially front-to-rear
15 through the first sector of the rotor;
16 flowing air to the exterior axially axial rear-to-front
17 through the second sector of the rotor of air;
18 pressurizing the housing around the periphery of the
19 rotor with housing air at a superatmospheric pressure;
20 projecting sealing air from the separators and thereby
21 preventing mixing of air between the sectors; and
22 supplying housing or sealing air to the wedge-like device
23 of the rotor from the housing as purging air.